QTP 4Y0X2-3
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DENTAL LABORATORY SPECIALTY

Volume 3. Fabricating Removable and Orthodontic Appliances

381 Training Squadron

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Volume 3, *Fabricating Removable and Orthodontic Appliances*, contains modules on such procedures as fabricating mouthguards, fluoride carriers, interim removable partial dentures, temporomandibular joint dysfunction (TMD) appliances, periodontal stents, surgical splints, complete and removable partial denture bases, space maintainers, Hawley retainers, relining removable prostheses, and rebasing complete dentures. This QTP is designed to enhance 5- and 7-skill level OJT of dental laboratory personnel. The 4Y0X2 Career Development Course may be used to compliment the training references listed in each module. All four QTPs are intended to be used by trainees, trainers, supervisors, and task certifiers.

QTPs are designed to help you conduct and evaluate your field training. Once you begin upgrade training you are required to use the QTPs. QTPs provide continuity to the trainee's upgrade training and are divided into the following volumes: 1) *General Skills;* 2) *Fabricating Fixed Restorations;* 3) *Fabricating Removable and Orthodontic Appliances; and* 4) *Administration and Management*. The QTP modules were written to assist you in preparing for and conducting training. You *must* use the QTP modules for training when either: 1) the STS task is a core task (minimum qualification for the specialty); or 2) you have identified the STS task as a requirement of the trainee's job. Each module segments the major tasks into teachable elements. Your goal is to provide enough training and guidance so trainees can do all task related steps, without assistance, and produce an appliance that meets local requirements for speed and accuracy. QTPs also aid OJT task certifiers in evaluating the trainee's demonstrated performance. If you have local training requirements not covered by a QTP module you *should* develop "steps in performance" and "performance checklists" that support and standardize those tasks.

Accompanying each volume of QTPs is a *qualification training progress record.* This QTP record serves as a document to record the date the trainee completes each module. Every person in qualification/upgrade training *must* have this QTP progress record filed in their OJT folder. Use and annotation of this progress record is similar to current OJT documentation. When *you* are satisfied the trainee meets standards, as prescribed in the QTP performance checklist, *you* must document and initial each task completion date in column 2B of the Specialty Training Standard (STS) and the "date completed" column in the QTP progress record. If a person is being recertified on a task that is supported by a QTP you must use that module to complete the recertification process. It is *not* necessary to produce multiple hard copies of the QTP modules; however, your workcenter requirements may require additional copies. Regardless, you should file the QTPs in an accessible location.

Typically, you will manage each module by first, training the tasks and then, evaluating performance. Your local steps in performance may vary from the method listed in the QTP module. If this is the case, you are authorized to make changes to the first half of each module, (i.e. steps in task performance); however, the "performance checklist" is considered a *standard* and cannot be altered. You may train each QTP volume/module in any sequence; however, when conducting training

use an organized and methodical approach. This will reduce your training time and enhance your efforts.

When beginning any training process you should first, review the procedures in each module with the trainee. Second, direct the trainee to review the training references listed to prepare for task performance. Third, go through the steps in task performance with the trainee, allowing enough time to adequately train each step (some modules may take longer to teach). Fourth, evaluate the trainee's work at each critical step--using the performance checklist at this point will be helpful. Fifth, evaluate the trainee's performance and provide feedback on any areas for improvement. Finally, when the trainee has successfully completed the task you must document and initial both the STS and the QTP progress record. If the trainee does not accomplish the module, conduct follow-up instruction until the trainee successfully completes the task.

The QTP project goal of the 381 TRS, Sheppard AFB TX, is to publish a useable document for trainers and trainees. You are encouraged to write-in changes or revisions to the QTPs. A corrections/improvements letter is located on the last page of each QTP volume. You may choose to call in your recommendations to DSN 736-7008 or FAX DSN/Commercial 736-6928 or (817) 676-6928 or email the author at mark.cochrane@sheppard.af.mil.

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MODULE 1. FABRICATING ATHLETIC MOUTHGUARDS AND FLUORIDE CARRIERS

STS TASK REFERENCE(S):

5b Fabricate athletic mouthguards

5c Fabricate fluoride carriers

TRAINING REFERENCE(S):

AFP 162-6, Vol 3, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to construct athletic mouthguards and fluoride carriers. Have the trainee fabricate mouthguards and fluoride carriers and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Alcohol Torch
Bard Parker
Burs
Mouthguard Material
Wax Pencil (red/blue)
Denture Bag
Arbor Band
Bunsen Burner
Handpiece or Lathe
Scissors
Vacuum Former
Disinfectant

STEPS IN TASK PERFORMANCE:

1. Draw outline of mouthguard/fluoride carrier design on cast
2. Apply spacer if required
3. Drill hole in palate/tongue area of cast using bur
4. Place mouthguard material in vacuum former
5. Elevate material to heating element of vacuum former
6. Turn on heating element
7. Allow material to drop (slump) approximately one and one-half inches
8. Soak cast with saturated calcium sulfate dihydrate solution (SDS)
9. Place cast on vacuum former platform
10. Turn on suction unit of vacuum former
11. Drop heated mouthguard material on cast
12. Swing heating element away for safety
13. Once the material is fully adapted, turn off heating element and suction unit of vacuum former
14. Allow vinyl plastic to bench cool until firm
15. Remove from vacuum former
16. Cut excess vinyl material
17. Heat tip of bard parker over Bunsen burner
18. Cut mouthguard/fluoride material to design using Bard Parker
19. For fluoride carriers only, scallop/cut material 0.5 mm to 1.0 mm below cervical of teeth using Bard Parker or bur
20. Remove mouthguard/fluoride carrier from cast
21. Finish rounded borders of mouthguard/fluoride carrier using arbor band
22. Replace mouthguard/fluoride carrier on cast and smooth borders using torch
23. Remove mouthguard/fluoride carrier from cast
24. Disinfect mouthguard/fluoride carrier
25. Replace mouthguard/fluoride carrier on cast
26. Place mouthguard/fluoride carrier and cast in denture bag

MODULE 1. FABRICATING ATHLETIC MOUTHGUARDS AND FLUORIDE CARRIERS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to construct athletic mouthguards and fluoride carriers and satisfactorily perform all tasks without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING ATHLETIC MOUTHGUARDS AND FLUORIDE CARRIERS

DID THE TRAINEE…?	YES	NO
1. Prepare cast for vacuum forming the mouthguard/fluoride material		
2. Properly heat the mouthguard/fluoride material to ensure proper adaptation and thickness		
3. Cut the mouthguard/fluoride material to design		
4. Smooth the borders without deforming the material		
5. Disinfect the mouthguard or fluoride carrier		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 2. FABRICATING INTERIM REMOVABLE PARTIAL DENTURES (RPD)

STS TASK REFERENCE(S):

5a Fabricate interim removable partial dentures

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

Manufacturer's instructions

EVALUATION INSTRUCTIONS:

You may choose either the autopolymerizing or heat-cured acrylic resin technique for this module. Demonstrate how to accurately construct an interim removable partial denture. Stress the importance of eliminating unwanted interference's between the denture tooth and opposing occlusal forces. Ensure the trainee understands how to properly operate the curing unit/pressure pot. Explain the purpose for remounting, and reestablishing the occlusal interference's of the case after curing. Have the trainee fabricate interim RPDs and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Alcohol Torch
Articulator
Artificial Teeth
Baseplate Wax
Bunsen Burner
Bur
Curing Unit/pressure pot
Disinfectant Solution
Denture Bag
Acrylic Resin
Flask
Flask Carrier
Flask Press
Identification (ID) Material
Impression Material
Pumice
Polishing Compound
Wire Cutters
Waxing Instruments
Wrought Wire
Wire-Bending Pliers (Bird-Beak, 3-Prong)

STEPS IN TASK PERFORMANCE:

1. Articulate casts
2. Survey, design, blockout, and duplicate cast
3. Design master cast per dentist's instructions
4. Select proper artificial teeth, shade, and mold
5. Bend wrought wire clasps, if requested
6. Adjust and arrange artificial teeth for esthetics and function
7. If using autopolymerizing resin, create a matrix for artificial teeth before applying monomer and polymer mixture
8. Anatomically wax-up denture base and gingival trim
9. Wax denture teeth and base into proper position
10. Remove cast from articulator
11. Flask, boilout,
12. Mix and pack acrylic IAW manufacturer's instructions, and cure interim RPD
13. Remove flask press from curing unit and allow to bench cool to room temperature
14. Deflask interim RPD
15. Remount cast on articulator mounting
16. Perform selective grinding to reestablish desired occlusal relationship
17. Remove interim RPD from cast
18. Place patient identification and finish and polish interim RPD
19. Disinfect interim RPD and store in a humid environment

MODULE 2. FABRICATING INTERIM REMOVABLE PARTIAL DENTURES (RPD)

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to fabricate an interim removable partial denture and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING INTERIM REMOVABLE PARTIAL DENTURES (RPD)

DID THE TRAINEE…?	YES	NO
1. Verify accuracy of casts and mountings		
2. Bend wrought wire clasps as prescribed		
3. Arrange denture teeth for ideal function and esthetics		
4. Using autopolymerizing acrylic resin:		
a. Sprinkle the appliance to proper design and thickness		
b. Recover, finish, and polish appliance, producing a smooth hygienic surface		
c. Disinfect finished appliance		
d. Properly cure autopolymerizing resin- achieving a dense porous free appliance		
e. Place patient ID, finish, and polish appliance, producing a smooth hygienic surface		
f. Disinfect finished appliance		
5. Using heat-cured acrylic resin:		
a. Wax the interim RPD to proper design and thickness		
b. Flask and boil-out interim RPD, ensuring there is no damage to the mold		
c. Apply separator and pack the mold IAW manufacturer's directions		
d. Deflask interim RPD without breaking cast or appliance		
e. Properly cure the appliance, achieving a dense porous free appliance		

MODULE 2. FABRICATING INTERIM REMOVABLE PARTIAL DENTURES (RPD)

PERFORMANCE CHECKLIST (CONT'D)

f. Remount cast and reestablish desired occlusal relationship of interim RPD		
g. Place patient ID, finish, and polish appliance, producing a smooth hygienic surface		
h. Disinfect finished appliance		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 3. FABRICATING TEMPOROMANDIBULAR JOINT DYSFUNCTION (TMD) APPLIANCES

STS TASK REFERENCE(S):

5d Fabricate hard nightguards

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to accurately construct a maxillary or mandibular TMD appliance using the compression-molded technique. Ensure the proper amount of pin opening is established prior to fabricating the TMD appliance. Some laboratories may use the sprinkle technique to fabricate TMD appliances; you may choose to demonstrate this technique instead of the compression molded technique. Have the trainee fabricate a TMD appliance and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Articulating Paper (Red & Black)
Baseplate Wax
Blockout Wax
Boilout Unit
Buffalo Knife
Bunsen Burner or Alcohol Torch
Burs
Clear Acrylic Resin
Curing Unit
Polishing Compound
Denture Bag
Disinfectant Solution
Flask
Flask Press
Handpiece or Lathe
Pumice
Indelible Ink Marker
Plastic packing sheets
Pneumatic Chisel
Bard Parker
Shim stock
Surveyor
Soft Bristle Brush
Spatula
Tweezers
Water

STEPS IN TASK PERFORMANCE:

1. Mount casts on articulator; establish correct vertical dimension of occlusion (VDO)
2. Survey, design, and blockout cast
3. Wax TMD appliance to prescribed design, and occlusal scheme
4. Remove cast from mounting
5. Flask, boil-out, mix and pack acrylic IAW manufacturer’s instructions
6. Cure acrylic resin IAW manufacturer's instructions
7. Bench cool flask to room temperature
8. Remove flask from flask press
9. Deflask appliance and remount on articulator
10. Restore VDO
11. Disclose centric contacts with black articulating paper
12. Disclose eccentric contacts with red articulating paper
13. Restore prescribed disclusion
14. Confirm uniform centric contact using shim stock
15. Remove TMD appliance from cast
16. Place patient ID, finish, and polish TMD appliance
17. Disinfect TMD appliance store in a humid environment

MODULE 3. FABRICATING TEMPOROMANDIBULAR JOINT DYSFUNCTION (TMD) APPLIANCES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to construct a TMD appliance and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING HARD NIGHT GUARDS

DID THE TRAINEE…?	YES	NO
1. Verify accuracy of casts and mounting		
2. Wax up (or sprinkle) the TMD appliance to the pin setting established by the provider		
3. Flask and boil-out TMD appliance, ensuring there is no damage to the mold		
4. Apply separator and pack the mold IAW manufacturer's directions		
5. Cure acrylic resin using proper time and temperature		
6. Deflask TMD appliance without breaking cast or appliance		
7. Remount cast on articulator and reestablish desired occlusal relationship		
8. Recover, finish, and polish the appliance, producing smooth, hygienic surfaces		
9. Disinfect the appliance		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 4. FABRICATING PERIODONTAL STENTS

STS TASK REFERENCE(S):

5e Fabricate periodontal stents

TRAINING REFERENCE(S):

AFP 162-6, Vol 3, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to fabricate a clear acrylic resin periodontal stent. Stress how desirable undercuts are used for retentive purposes. Have the trainee fabricate periodontal stents and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCE(S):

Baseplate Wax
Bur
Disinfectant Solution
Identification (ID) Material
Polishing Compound
Pumice
Separating Medium
Waxing Instrument
Bunsen Burner
Lathe or Handpiece
Orthodontic Resin
Pressure Pot
Rag Wheels
Spatula
Surveyor
Wax Pencil (Red & Blue)

STEPS IN TASK PERFORMANCE:

1. Design stent and identify undercuts
2. Block out undesirable undercut areas with baseplate wax
3. Apply separating medium to cast
4. Sprinkle orthodontic resin within design area
5. Place patient identification
6. Submerge cast (teeth down) in 115 °F water, seal and pressurize to 20 psi for 30 minutes.
7. Remove cast from pressure pot
8. Separate stent from cast
9. Trim stent using stones, burs, and rubber wheel
10. Pumice and polish stent using rag wheel
11. Disinfect stent, store in a humid environment

MODULE 4. FABRICATING PERIODONTAL STENTS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to fabricate a clear acrylic resin periodontal stent and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING PERIODONTAL STENTS

DID THE TRAINEE…?	YES	NO
1. Verify accuracy of cast		
2. Design stent correctly		
3. Block out undesirable undercuts before applying acrylic resin		
4. Sprinkle the acrylic resin, ensuring adequate coverage and bulk for finishing,		
5. Ensure the acrylic resin is dense and completely cured		
6. Remove the stent from the cast without breaking or warping it		
7. Properly finish and polish the stent as per provider's instructions		
8. Disinfect the stent		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 5. FABRICATING SURGICAL SPLINTS

STS TASK REFERENCE(S):

5f Fabricate surgical splint

TRAINING REFERENCE(S):

162-6, Vol 3, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to fabricate a clear acrylic resin surgical splint. Stress how desirable undercuts are used for retentive purposes. Have the trainee fabricate surgical splints and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCE(S):

Baseplate Wax
Bur
Disinfectant Solution
Identification (ID) Material
Mixing Bowl
Polishing Compound
Pumice
Separating Medium
Stone
Vibrator
Waxing Instrument
Bunsen Burner
Cast Trimmer
Distilled Water
Lathe or Handpiece
Orthodontic Resin
Pressure Pot
Rag Wheels
Spatula
Vacuum Mixer
Wax Pencil (Red & Blue)
Surveyor

STEPS IN TASK PERFORMANCE:

1. Design and identify undercuts
2. Block out undesirable undercut areas with baseplate wax
3. Apply separating medium to cast
4. Sprinkle orthodontic resin within design area 2-3 mm thick
5. Submerge cast (teeth down) in 115 °F water, seal and pressurize to 20 psi for 30 minutes
6. Remove cast from pressure pot
7. Separate surgical splint from cast
8. Trim surgical splint using stones, burs, and rubber wheel
9. If prescribed, place holes in acrylic resin for ligature wires
10. Place patient identification
11. Pumice and polish surgical splint using rag wheel
12. Disinfect surgical splint, store in a humid environment

MODULE 5. FABRICATING SURGICAL SPLINTS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to fabricate a clear acrylic resin surgical splint and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING SURGICAL SPLINTS

DID THE TRAINEE…?	YES	NO
1. Verify accuracy of cast		
2. Block out undesirable undercuts before applying acrylic resin		
3. Sprinkle the acrylic resin, ensuring adequate coverage and bulk for finishing		
4. Ensure the acrylic resin is dense and completely cured		
5. Remove the surgical splint from the cast without breaking or warping it		
6. Properly finish and polish the surgical splint as per provider's instructions		
7. Disinfect the surgical splint		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

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MODULE 6. CONSTRUCTING RECORD BASES AND OCCLUSAL RIMS

STS TASK REFERENCE(S):

6a Construct record bases and occlusal rims

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to accurately construct maxillary and mandibular record bases and occlusal rims. Stress the importance of blocking out undesirable undercuts to prevent breaking or warping the record base. Have the trainee construct record bases and occlusal rims and suggest ways to improve performance. Ensure the trainee has received sufficient practice, then evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Acrylic Resin
Baseplate Wax
Disinfectant Solution
Separating Medium
Spatula
Template 0^{o}
Alcohol Torch
Bunsen Burner
Pressure Pot
Small Artist Brush
Millimeter Ruler

STEPS IN TASK PERFORMANCE:

1. Inspect casts for suitability and design record base
2. Block out casts to zero degrees
3. Apply separating medium to casts
4. Apply acrylic resin to a uniform thickness of approx. 2.0 mm
5. Submerge cast (teeth down) in 115 °F water, seal and pressurize to 20 psi for 30 minutes.
6. Remove assembly from pressure pot
7. Separate record base from cast
8. Trim record base to design and finish to optimal thickness
9. Replace record base on cast
10. Attach occlusal rim to record base over crest of the ridge
11. Modify wax to achieve proper dimensions, as prescribed by dentist
12. Smooth (flame) occlusion rims using alcohol torch
13. Polish bases and rims with damp cotton balls
14. Disinfect record base and store in a humid environment

MODULE 6. CONSTRUCTING RECORD BASES AND OCCLUSAL RIMS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to accurately construct record bases and occlusal rims and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

CONSTRUCTING RECORD BASES AND OCCLUSAL RIMS	YES	NO
DID THE TRAINEE..?		
1. Ensure the casts are free of voids and nodules		
2. Blockout casts to zero degrees		
3. Apply acrylic resin to casts, reaching an optimal thickness		
4. Ensure the acrylic resin is dense and completely cured		
5. Carefully remove the cured record bases from the cast without breakage or warpage		
6. Finish and smooth record base borders, ensuring denture bearing areas are covered		
7. Trim the record bases to desired thickness and design length		
8. Adapt and modify wax rims to proper dimensions and ensure final product is polished		
9. Disinfect record bases		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 7. ARRANGING DENTURE TEETH FOR BILATERAL BALANCED OCCLUSION

STS TASK REFERENCE(S):

6b Select artificial teeth for prostheses

6c(1)(a) Arrange teeth for bilateral balanced occlusion

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

For this module, use 30° or 33° posterior teeth and applicable manufacturer's instructions. Demonstrate how to select mold and shade of artificial teeth as requested and arrange denture teeth for bilateral balanced occlusion. Stress the importance of scribing the midline on the maxillary cast to preserve the landmark. Explain purpose and function of balanced occlusion. Have the trainee arrange denture teeth for bilateral balanced occlusion and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Alcohol Torch
Artificial Teeth
Baseplate Wax
Burs
Pencil
Stones
Waxing Instruments
Articulator
Bard Parker
Bunsen Burner
Millimeter Ruler
Shade/Mold Guide
Template

STEPS IN TASK PERFORMANCE:

1. Review DD Form 2322 for specific instructions (shade, mold, and brand)
2. Mount casts
3. Measure high lip line and cuspid line markings
4. Select anterior and posterior denture teeth
5. Adjust articulator to proper settings
6. Scribe midline on base of maxillary cast using Bard Parker
7. Arrange maxillary anterior teeth IAW manufacturer's directions
8. Outline retromolar pad in pencil
9. Draw line from center of retromolar pad along crest of ridge to projected cuspid location
10. Arrange maxillary posterior teeth IAW manufacturer's directions
11. Arrange mandibular posterior teeth IAW manufacturer's directions
12. Loosen articulator condylar settings
13. Raise incisal table angles to appropriate settings based on posterior teeth
14. Move articulator upper member to establish articulator guided working and balancing contacts
15. Secure condylar/incisal settings
16. Arrange mandibular anterior teeth IAW manufacturer's directions
17. Ensure 1.0 mm vertical and horizontal overlap
18. Perform final check of occlusion

MODULE 7. ARRANGING DENTURE TEETH FOR BILATERAL BALANCED OCCLUSION

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to select the proper artificial tooth by shade and mold as prescribed by the provider. The trainee must be able to achieve a setup incorporating proper compensating curve and buccal alignment. The trainee must satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

ARRANGING TEETH FOR BILATERAL BALANCED OCCLUSION

DID THE TRAINEE…?	YES	NO
1. Ensure the casts were accurately mounted		
2. Select the correct shade and mold of artificial tooth as prescribed by the provider		
3. Verify the alignment of the midline between maxillary and mandibular teeth		
4. Set the central sulcus of maxillary posterior teeth over the crest of the lower ridge		
5. Set mandibular posterior teeth for correct working, balancing, and protrusive contacts		
6. Arrange mandibular anteriors for optimum function and esthetics		
7. Perform a final check on the occlusion to verify occlusal scheme		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 8. ARRANGING TEETH FOR MONOPLANE OCCLUSION

STS TASK REFERENCE(S):

6b Select artificial teeth for prostheses

6c(1)(b) Arrange teeth for monoplane occlusion

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

For this module, use 0° posterior teeth and applicable manufacturer's instructions. Demonstrate how to select mold and shade of artificial teeth as requested and arrange denture teeth for monoplane occlusion. Have the trainee arrange denture teeth for monoplane occlusion and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Alcohol Torch
Artificial Teeth
Baseplate Wax
Burs
Pencil
Stones
Waxing Instruments
Articulator
Bard Parker
Bunsen Burner
Millimeter Ruler
Shade/Mold Guide
Template

STEPS IN TASK PERFORMANCE:

1. Review DD Form 2322 for specific instructions (shade, mold, and brand)
2. Mount casts
3. Measure high lip line and cuspid line markings
4. Select anterior and posterior denture teeth
5. Adjust articulator to proper settings
6. Scribe midline on base of maxillary cast using Bard Parker
7. Arrange maxillary anterior teeth IAW manufacturer's directions
8. Arrange mandibular anterior teeth IAW manufacturer's directions
9. Outline retromolar pad in pencil
10. Draw line from center of retromolar pad along crest of ridge to projected cuspid location
11. Place a mark 2/3 up retromolar pad to indicate the mandibular occlusal plane height
12. Arrange mandibular posterior teeth IAW manufacturer's directions
13. Arrange maxillary posterior teeth IAW manufacturer's directions
14. Perform final check of occlusion

MODULE 8. ARRANGING TEETH FOR MONOPLANE OCCLUSION

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to select the proper artificial tooth by shade and mold as prescribed by the provider. The trainee must be able to achieve a setup for monoplane occlusion and incorporate proper buccal alignment. The trainee must satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

ARRANGING TEETH FOR MONOPLANE OCCLUSION

DID THE TRAINEE…?	YES	NO
1. Ensure the casts were accurately mounted		
2. Select the correct shade and mold of artificial tooth as prescribed by the provider		
3. Arrange maxillary and mandibular anteriors for optimum function and esthetics		
4. Verify the alignment of the midline between maxillary and mandibular teeth		
5. Set the buccal cusps of mandibular posterior teeth over the crest of the lower ridge		
6. Set maxillary posterior teeth for maximum intercuspation and sufficient horizontal overlap to prevent cheek biting		
7. Perform a final check on the occlusion to verify occlusal scheme		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 9. ARRANGING TEETH FOR CROSSBITE OCCLUSION

STS TASK REFERENCE(S):

6b Select artificial teeth for prostheses

6c(1)(c) Arrange teeth for crossbite occlusion

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

For this module, use 0° posterior teeth and applicable manufacturer's instructions. You may choose to certify training on this module using either semi-anatomic or nonanatomic posterior teeth in the setup. Demonstrate how to select mold and shade of artificial teeth as requested and arrange denture teeth for crossbite occlusion. Have the trainee arrange denture teeth for crossbite occlusion and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Alcohol Torch
Artificial Teeth
Baseplate Wax
Burs
Pencil
Stones
Waxing Instruments
Articulator
Bard Parker
Bunsen Burner
Millimeter Ruler
Shade/Mold Guide
Template

STEPS IN TASK PERFORMANCE:

1. Review DD Form 2322 for specific instructions (shade, mold, and brand)
2. Mount casts
3. Measure high lip line and cuspid line markings
4. Select anterior and posterior denture teeth
5. Adjust articulator to proper settings
6. Scribe midline on base of maxillary cast using Bard Parker
7. Arrange maxillary anterior teeth IAW manufacturer's directions
8. Arrange mandibular anterior teeth IAW manufacturer's directions
9. Outline retromolar pad in pencil
10. Draw line from center of retromolar pad along crest of ridge to projected cuspid location
11. Place a mark 2/3 up retromolar pad to indicate the mandibular occlusal plane height
12. Arrange mandibular posterior teeth IAW manufacturer's directions
13. Arrange maxillary posterior teeth IAW manufacturer's directions
14. Ensure sufficient negative horizontal overlap exists where teeth are in a crossbite relationship
15. Perform final check of occlusion

MODULE 9. ARRANGING TEETH FOR CROSSBITE OCCLUSION

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to select the proper artificial tooth by shade and mold as prescribed by the provider. The trainee must be able to achieve a setup for crossbite occlusion and incorporate proper buccal alignment. The trainee must satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

ARRANGING TEETH FOR CROSSBITE OCCLUSION

DID THE TRAINEE…?	YES	NO
1. Ensure the casts were accurately mounted		
2. Select the correct shade and mold of artificial tooth as prescribed by the provider		
3. Arrange maxillary and mandibular anteriors for optimum function and esthetics		
4. Verify the alignment of the midline between maxillary and mandibular teeth		
5. Set the central sulcus of mandibular posterior teeth over the crest of the lower ridge		
6. Set maxillary posterior teeth for maximum intercuspation and sufficient negative horizontal overlap to prevent cheek biting		
7. Perform a final check on the occlusion to verify occlusal scheme		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 10. ARRANGING TEETH FOR OPPOSING NATURAL DENTITION

STS TASK REFERENCE(S):

6b Select artificial teeth for prostheses

6c(1)(d) Arrange teeth for opposing natural dentition

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

For this module, use anatomic or semianatomic posterior teeth and applicable manufacturer's instructions. Demonstrate how to select mold and shade of artificial teeth as requested and arrange denture teeth opposing natural dentition. Have the trainee arrange denture teeth opposing natural dentition and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Alcohol Torch
Artificial Teeth
Baseplate Wax
Burs
Pencil
Stones
Waxing Instruments
Articulator
Bard Parker
Bunsen Burner
Millimeter Ruler
Shade/Mold Guide
Template
Handpiece

STEPS IN TASK PERFORMANCE:

1. Review DD Form 2322 for specific instructions (shade, mold, and brand)
2. Mount casts
3. Measure high lip line and cuspid line markings
4. Select anterior and posterior denture teeth
5. Adjust articulator to proper settings
6. Scribe midline on base of maxillary cast using Bard Parker
7. Arrange maxillary anterior teeth IAW manufacturer's directions
8. Open the vertical dimension of occlusion (VDO) approx. 1.0 mm to accommodate good centric occlusion after grind-in
9. Arrange maxillary posterior teeth IAW manufacturer's directions
10. Reset incisal guide pin and disclose occlusal contacts
11. Selective grind occlusal surfaces of teeth to reestablish original VDO
12. Reset teeth as necessary to achieve tight centric occlusal contacts with sufficient horizontal and vertical overlap for maximum intercuspation
13. Perform final check of occlusion

MODULE 10. ARRANGING TEETH FOR OPPOSING NATURAL DENTITION

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to select the proper artificial tooth by shade and mold as prescribed by the provider. The trainee must be able to set artificial teeth against natural dentition. The trainee must satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

ARRANGING TEETH FOR OPPOSING NATURAL DENTITION

DID THE TRAINEE…?	YES	NO
1. Ensure the casts were accurately mounted		
2. Select the correct shade and mold of artificial tooth as prescribed by the provider		
3. Arrange maxillary anteriors for optimum function and esthetics		
4. Verify placement of the midline		
5. Set maxillary posterior teeth with sufficient horizontal overlap to prevent cheek biting		
6. Selective grind occlusion for maximum intercuspation		
7. Perform a final check on the occlusion to verify occlusal scheme		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 11. ARRANGING TEETH FOR LINGUALIZED OCCLUSION

STS TASK REFERENCE(S):

6b Select artificial teeth for prostheses

6c(1)(e) Arrange teeth for lingualized occlusion

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

For this module, use semianatomic maxillary and nonanatomic mandibular posterior teeth and applicable manufacturer's instructions. Demonstrate how to select mold and shade of artificial teeth as requested and arrange denture teeth for lingualized occlusion. Have the trainee arrange denture teeth for lingualized occlusion and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

20° Template
Articulator
Bard Parker
Bunsen Burner
Millimeter Ruler
Shade/Mold Guide
Waxing Instruments
Alcohol Torch
Artificial Teeth
Baseplate Wax
Burs
Pencil
Stones

STEPS IN TASK PERFORMANCE:

1. Review DD Form 2322 for specific instructions (shade, mold, and brand)
2. Mount casts
3. Measure high lip line and cuspid line markings
4. Select anterior and posterior denture teeth
5. Adjust articulator to proper settings
6. Scribe midline on base of maxillary cast using Bard Parker
7. Arrange maxillary anterior teeth IAW manufacturer's directions
8. Arrange mandibular anterior teeth IAW manufacturer's directions
9. Outline retromolar pad in pencil
10. Draw line from center of retromolar pad along crest of ridge to projected cuspid location
11. Place a mark 2/3 up retromolar pad to indicate the mandibular occlusal plane height
12. Arrange mandibular posterior teeth to contact the underside of a 20° template
13. Arrange maxillary posterior teeth with the lingual cusp contacting the central fossa and the buccal cusp slightly raised
14. Perform final check of occlusion

MODULE 11. ARRANGING TEETH FOR LINGUALIZED OCCLUSION

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to select the proper artificial tooth by shade and mold as prescribed by the provider. The trainee must be able to achieve a setup for lingualized occlusion and incorporate proper buccal alignment. The trainee must satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

ARRANGING TEETH FOR LINGUALIZED OCCLUSION

DID THE TRAINEE…?	YES	NO
1. Ensure the casts were accurately mounted		
2. Select the correct shade and mold of artificial tooth as prescribed by the provider		
3. Arrange maxillary and mandibular anteriors for optimum function and esthetics		
4. Verify the alignment of the midline between maxillary and mandibular teeth		
5. Set the central sulcus of mandibular posterior teeth over the crest of the lower ridge		
6. Set maxillary posterior teeth, ensuring lingual cusps contact mandibular central fossa		
7. Raise maxillary buccal cusps of posterior teeth		
8. Perform a final check on the occlusion to verify occlusal scheme		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 12. WAXING COMPLETE DENTURE BASES

STS TASK REFERENCE(S):

6c(3) Wax-up denture bases

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to wax complete denture bases. Stress that after removal of the palate, the maxillary denture must be carefully handled to avoid breakage. Stress cleanliness of the denture teeth in the final wax-up. Have the trainee wax complete denture bases and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Alcohol Torch
Bunsen Burner
Dental Handpiece
Lab Saw
Squeeze Cloth
Waxing Instruments
Baseplate Wax
Bur (No. 6)
Fissure Bur
Sheet Casting Wax
Wax Pencil

STEPS IN TASK PERFORMANCE:

1. Remove trial dentures from cast
2. Inspect cast for debris
3. Remove excess wax or debris by preferred method
4. Remove palate using fissure bur or lab saw
5. Clean debris from denture
6. Seat dentures on cast
7. Check centric occlusion
8. Wax flanges of both dentures to cast using baseplate wax
9. Reset teeth to centric occlusion, if adjustment is required
10. Wax palate of maxillary denture using 28-gauge sheet casting wax and one sheet of baseplate wax or use preformed palate
11. Blend wax into denture using waxing instrument
12. Bulk wax flanges of maxillary and mandibular dentures using baseplate wax
13. Perform gingival trim and shape root eminences using preferred waxing instruments
14. Shape labial flanges to provide proper lip support and promote denture retention
15. Prepare concave mandibular lingual flange to allow space for the patient's tongue
16. Smooth entire denture surface lightly using alcohol torch
17. Perform final gingival trim using preferred waxing instrument
18. Stipple wax area between first bicuspids by preferred method
19. Remove wax from teeth using squeeze cloth and dental instrument
20. Verify occlusion

MODULE 12. WAXING COMPLETE DENTURE BASES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to wax complete denture bases and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

WAXING COMPLETE DENTURE BASES

DID THE TRAINEE…?	YES	NO
1. Remove the palate without breakage and accurately reseat the denture on the cast		
2. Replace the palate with wax or preformed palate, producing a uniform thickness		
3. Recheck the occlusion and make any necessary adjustments to return the denture teeth to the prescribed occlusal relationship		
4. Bulk wax dentures to provide adequate wax thickness for contouring		
5. Carve gingival trim and root eminences to simulate natural tissue contours without creating food traps		
6. Shape the labial flanges to allow for the lips, cheeks and tongue		
7. Smooth the waxup and redefine the gingival trim, ensuring removal of all excess wax from the denture teeth		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 13. PROCESSING COMPLETE DENTURE BASES

STS TASK REFERENCE(S):

6c(4)(a)	Flask complete dentures
6c(4)(b)	Eliminate wax
6c(4)(c)	Create posterior palatal seals
6c(4)(e)	Pack acrylic resins
6c(4)(f)	Cure denture bases

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to process acrylic resin for denture bases. Emphasize that processing techniques vary from product to product. A trainee should review and follow the manufacturer's instructions each time they use an acrylic resin product. Stress the importance of eliminating all undercuts in bottom half flasking. Stress the importance of achieving metal-to-metal contact between flask halves during final closure. Have the trainee process acrylic resin and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Acrylic Resin
Boil-Out Unit
Brush
Burs
Curing Unit
Dental Handtools/Instruments
Dental Stone
Detergent
Flask
Flask Carrier
Flask Press
Metal Ladle
Mixing Bowl
Mixing Jar with Lid
Packing Sheets
Gloves
Vacuum Mixer
Separating Medium

STEPS IN TASK PERFORMANCE:

1. Apply separating medium to cast and flask
2. Prepare stone mixture to creamy consistency and pour in lower half of flask
3. Place cast in stone, pouring additional stone to land area of cast
4. Smooth surface of stone to eliminate all undercuts
5. Allow stone mix to set until firm
6. Apply separating medium to stone surface
7. Prepare stone mixture using vacuum mixer and pour upper half of flask to occlusal of teeth
8. Create a trough in tongue space of second pour to ease deflasking
9. Allow mix to set until hard and apply separating medium to stone surface
10. Cap with stone mix, slightly overfilling flask and place lid on flask
11. Allow stone to set and clean excess stone from exterior of flask
12. Submerge flask in boil-out unit for 5 minutes
13. Open mold using deflasking chisel
14. Remove any solid wax from mold using a dental waxing instrument
15. Flush out remaining wax from each flask half using metal ladle or available pump system
16. Scrub out mold halves using brush and detergent
17. Rinse out mold halves with clean water by ladle or pump method
18. Return maxillary lower half of flask to dentist for designing posterior palatal seal area
19. Carve posterior palatal seal to prescribed width and depth if not done previously
20. Grind diatorics in ridge lap portion of acrylic denture teeth
21. Apply separating medium to stone areas of mold
22. Ensure separating medium does not touch ridge lap area of acrylic teeth
23. Measure and mix and acrylic resin IAW manufacturer’s instructions
24. Roll and flatten resin dough, and cut into strips
25. Press strips gently into upper flask covering teeth and denture base
26. Place 2 plastic packing sheets over acrylic areas
27. Replace opposite flask half and place flask in flask press
28. Apply appropriate pressure to flask IAW manufacturer's instructions
29. Separate two halves of flask and remove packing sheets
30. Remove excess acrylic using blunt edged instrument
31. Trial pack the mold at least two times or until flash no longer appears
32. Perform final closure of flask with no packing sheets
33. Place flask in flask carrier
34. Submerge carrier in curing unit and cure acrylic resin IAW manufacturer's instructions

MODULE 13. PROCESSING COMPLETE DENTURE BASES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to process complete denture bases and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

PROCESSING COMPLETE DENTURE BASES

DID THE TRAINEE…?	YES	NO
1. Properly prepare the flask and cast by applying separator		
2. Pour lower half of flask without incorporating undercuts in the stone		
3. Pour upper half of flask and stone cap, ensuring separator was applied between each new stone mixture		
4. Heat the flask in boiling water for 5-6 minutes and separate the flask halves without breakage		
5. Thoroughly clean the flask halves with detergent and flush with clean hot water		
6. Carve the posterior palatal seal into the maxillary cast following the dentists design		
7. Clean ridge laps of the teeth with monomer		
8. Mix acrylic resin according to manufacturer's directions		
9. Allow resin dough to reach packing consistency and properly roll/flatten to align fibers		
10. Trial pack the mold at least two times, or until achieving metal to metal contact between the flask halves with minimal flash of acrylic		
11. Final close the flask without a plastic sheet, place in flask carrier and tighten press		
12. Place the flask/flask carrier assembly in curing unit and cure in accordance with manufacturer's directions		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 14. APPLYING DENTURE BASE STAINS

STS TASK REFERENCE(S):

6c(4)(d) Apply denture base stains

TRAINING REFERENCE(S):

Manufacturer's directions

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to stain acrylic resin for light or dark skinned patients. Have the trainee apply denture base stains and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Brushes
Monomer Bottle with Eyedropper
Denture Stain Kit
Separating Medium

STEPS IN TASK PERFORMANCE:

1. Apply separating medium to stone areas of mold
2. Ensure separating medium does not touch acrylic teeth area
3. Sprinkle "h" (near white) polymer over labial and buccal base surfaces in a thin layer
4. Seep drops of monomer onto resin from peripheral edge of base using eyedropper
5. Apply "f" (light red) resin over the "h" resin covered areas of denture base
6. Substitute "b" colored resin for darker-skinned patients
7. Apply "a" (medium red) resin in interseptal area of denture base
8. Concentrate "h" resin at necks of root eminences of teeth, fading apically
9. Apply "f" resin to open and completed areas, avoiding borders, approximately 1-2 mm thickness
10. Substitute "b" resin for darker-skinned patients
11. Apply "a" resin to alveolar mucosa and border areas
12. Apply "No. 4" (dark red) resin to frenum areas
13. Place tinted mold in covered container with monomer moistened cotton roll for 20 minutes

MODULE 14. APPLYING DENTURE BASE STAINS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to apply denture base stains and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

APPLYING DENTURE BASE STAINS

DID THE TRAINEE…?	YES	NO
1. Sprinkle "h" (near white) polymer over labial and buccal base surfaces in a thin layer and moisten with monomer		
2. Apply "f" (light red) resin over the "h" resin covered areas of denture base (Substitute "b" colored resin for darker-skinned patients)		
3. Apply "a" (medium red) resin in interseptal area of denture base		
4. Concentrate "h" resin at necks of root eminences of teeth, fading apically		
5. Apply "f" resin to open and completed areas, avoiding borders, (Substitute "b" resin for darker-skinned patients)		
6. Apply "a" resin to alveolar mucosa and border areas		
7. Apply "No. 4" (dark red) resin to frenum areas		
8. Place tinted mold in covered container with monomer moistened cotton roll for 20 minutes		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 15. RESTORING THE OCCLUSION OF PROCESSED COMPLETE AND REMOVABLE PARTIAL DENTURES

STS TASK REFERENCE(S):

6c(5) Recover and remount dentures

6c(6) Restore and refine occlusion

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to deflask, remount and perform selective grinding procedures on processed dentures. Stress caution when making cuts to ensure the denture is not damaged. Stress accuracy during the remounting procedure. Have the trainee deflask, remount and perform selective grinding procedures, and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Air or Electric Chisel
Articulating Paper (red & black)
Bunsen Burner
Deflasking Chisels (2)
Flask Carrier
Knife
Lathe
Plaster Knife
Articulator
Compound Wax
Dental Handpieces
Flask Ejector
Large Cutoff Disc
Mill-In Paste
Dental burs

STEPS IN TASK PERFORMANCE:

1. Remove flask from curing unit and bench cool to room temperature
2. Remove flask from flask carrier
3. Remove flask cover and place flask in flask ejector
4. Place deflasking chisels into flask ejector slots
5. Press or push downward on deflasking chisels to separate flask from stone mold
6. Invert flask ejector and repeat separation procedures
7. Remove mold and flask from flask ejector
8. Make cuts in heel and cuspid area to remove denture and cast from mold
9. Ensure denture is not damaged
10. Remove stone from palate or tongue area of denture using air chisel
11. Clear remaining stone from cast using plaster knife
12. Clean base of cast and mounting
13. Attach cast to articulator mounting using hot compound material
14. Ensure cast/mounting junction line is not completely covered and cast is fully seated
15. Adjust articulator settings to duplicate previous settings
16. Place black articulating paper on left and right sides of denture and disclose high spots
17. Achieve maximum intercuspation (MI) by grinding fossae, proximal marginal ridges, and cusp inclines of denture using bur
18. Repeat disclosing and grinding procedures until incisal guide pin touches guide table
19. Place red articulating paper on left and right sides of denture
20. Slide upper member of articulator to right and left
21. Reduce excursive markings by grinding until working and balancing contacts are achieved
22. Place red articulating paper on left, right, and anterior of denture
23. Slide upper member of articulator to rear
24. Reduce protrusive markings by grinding until posterior tooth contact is achieved with simultaneous anterior tooth contact
25. Apply mill-in paste to occlusal surfaces of teeth
26. Slide upper member through excursive movements to duplicate chewing cycle
27. Clean dentures using soap and water

MODULE 15. RESTORING THE OCCLUSION OF PROCESSED COMPLETE AND REMOVABLE PARTIAL DENTURES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to deflask, remount and perform selective grinding procedures and satisfactorily perform all tasks without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

RESTORING THE OCCLUSION OF PROCESSED COMPLETE AND REMOVABLE PARTIAL DENTURES

DID THE TRAINEE…?	YES	NO
1. Remove the flask from the curing unit and allow to bench cool to room temperature		
2. Recover the processed denture/cast from the mold without damaging the denture or cast		
3. Accurately remount the cast		
4. Restore vertical dimension of occlusion ensuring all contacts are equally distributed when incisal guide pin touches the incisal table		
5. Restore working/balancing contacts equally, ensuring left/right eccentric contacts are evenly distributed		
6. Restore protrusive contacts equally ,ensuring positive anterior/posterior contacts exists in both areas		
7. Apply milling paste to occlusal surfaces of teeth and slide through excursive movements, duplicating the chewing cycle		
8. Clean excess milling paste from the teeth and denture base		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 16. CONSTRUCTING REMOUNTING INDICES AND REMOUNT CASTS

STS TASK REFERENCE(S):

6c(7) Construct remounting indices

6c(9) Construct remount casts

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to construct remounting indices and remount casts. Stress the importance of ensuring that the incisal guide pin touches the table. Have the trainee construct remounting indices and remount casts, and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Articulator
Cast Trimmer
Dental Handtools/Instruments
Millimeter Ruler/Gauge
Sticky Wax
Mixing bowl
Beading Wax
Clay
Preweighed Dental Stone
Remounting Table
Boxing wax
Spatula

STEPS IN TASK PERFORMANCE:

1. Remove lower cast and mounting from articulator
2. Install remounting table on lower member of articulator
3. Ensure adequate clearance between denture teeth and remounting table for addition of stone patty
4. Mix dental stone and place on remount table
5. Close articulator with only incisal edges and cusp tips of posterior teeth embedded in stone patty
6. Ensure incisal guide pin is in contact with incisal guide table
7. Remove any excess stone, if required, and allow to set
8. Inspect remount index for stability
9. Block out all tissue side undercuts on internal (intaglio) surface of denture using clay or wet tissue paper
10. Bead border of denture, leaving peripheral roll exposed
11. Mix dental stone to thick consistency
12. Fabricate stone patty slightly larger than denture to 5.0 mm thickness
13. Seat denture into patty until peripheral roll is covered
14. Allow stone to set and remove denture from cast
15. Trim cast to approximately 3.0 mm from peripheral roll indentation
16. Reseat maxillary denture on remount cast and attach using sticky wax
17. Place maxillary denture in remounting index and attach using sticky wax
18. Articulate remount cast, ensuring incisal guide pin touches the incisal guide table
19. Remove denture from remount cast and clean wax from denture surfaces
20. Disinfect completed dentures store in a humid environment

MODULE 16. CONSTRUCTING REMOUNTING INDICES AND REMOUNT CASTS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to construct remounting indices/index and remount casts and satisfactorily perform all tasks without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

HOW TO CONSTRUCT REMOUNTING INDICES/INDEX AND REMOUNT CASTS

DID THE TRAINEE…?	YES	NO
1. Properly prepare the articulator by removing the mandibular mounting and attaching the remounting table		
2. Construct the remounting index by slightly embedding the incisal edges and cusp tips in the patty, ensuring the incisal guide pin contacts the table		
3. Prepare the denture by blocking out all tissue undercuts and placing beading wax around the peripheral border		
4. Gently seat the denture into a stone patty to index the peripheral roll		
5. Trim the stone patty to approximately 3 mm from the peripheral roll indentations		
6. Lute the denture to both the cast and remounting index, and accurately mount the cast		
7. Remove sticky wax and disinfect the completed denture		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 17. FINISHING AND POLISHING COMPLETE DENTURES

STS TASK REFERENCE(S):

6c(8) Finish and polish dentures

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to finish and polish complete dentures. Emphasize caution when removing cast pieces to prevent breaking the denture. Have the trainee finish and polish complete dentures, and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Acrylic Resin
Assorted Burs/Stones
Disinfectant Solution
Identification (ID) Material
Polishing Compound
Pumice
Ultrasonic Cleaner
Air or Electric Chisel
Bench Lathe
Electric Handpiece
Lab Saw
Polishing Lathe
Rag Wheels

STEPS IN TASK PERFORMANCE:

1. Separate denture from cast using air chisel or lab saw
2. Trim off excess stone and acrylic resin using bur and handpiece/bench lathe
3. Remove any sharp spots from tissue area
4. Place denture identification on external (cameo) surface--lingual flange of mandibular/palatal of maxillary
5. Remove scratches using polishing lathe with wet rag wheel and pumice
6. Rinse denture under running water to remove excess pumice
7. Polish denture with polishing compound using rag wheel
8. Place denture in ultrasonic cleaner after polishing to remove polishing compound
9. Disinfect denture, store in a humid environment

MODULE 17. FINISHING AND POLISHING COMPLETE DENTURES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to finish and polish complete dentures and satisfactorily perform all tasks without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FINISHING AND POLISHING COMPLETE DENTURES

DID THE TRAINEE…?	YES	NO
1. Separate the denture bases from the cast without damaging the acrylic resin		`
2. Remove flash and correct denture contours		
3. Properly place patient ID and smooth the denture bases without altering contours or tooth anatomy		
4. Polish the denture bases, producing a smooth, hygienic surface		
5. Clean and disinfect the completed dentures		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 18. FABRICATING IMMEDIATE DENTURES

STS TASK REFERENCE(S):

6d(1) Arrange artificial teeth

6d(2) Wax-up denture bases

6d(3) Fabricate surgical templates

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to fabricate immediate dentures. Stress cleanliness of the denture teeth in the final wax-up. Have the trainee fabricate immediate dentures and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Acrylic Resin
Articulator
Boil-Out Unit
Bunsen Burner
Crown & Bridge Saw
Dental Handtools/Instruments
Detergent
Flask Carrier
Metal Ladle
Mixing Jar with Lid
Separating Medium
Patient ID Material
Disinfectant
Alcohol Torch
Baseplate Wax
Brush
Burs
Curing Unit
Dental Stone
Flask
Flask Press
Mixing Bowl
Packing Sheets
Vacuum Mixer
Gloves
Acrylic Teeth

STEPS IN TASK PERFORMANCE:

1. Review DD Form 2322 for specific instructions (shade, mold, and brand)
2. Articulate cast using proper articulator settings
3. Alternately remove and replace anterior teeth one tooth at a time
4. Remove all posterior stone teeth using bur
5. Set posterior teeth in baseplate wax to prescribed occlusal relationship
6. Bulk wax flanges of maxillary and mandibular dentures using baseplate wax
7. Perform gingival trim and shape root eminences using preferred waxing instruments
8. Shape facial flanges to provide proper lip support and promote denture retention
9. Contour mandibular lingual flange to allow space for the patients tongue
10. Smooth entire denture surface using alcohol torch
11. Perform final gingival trim using preferred waxing instrument
12. Remove wax from teeth using squeeze cloth and dental instrument
13. Verify occlusion
14. Flask denture
15. Eliminate wax from denture mold
16. Return lower half flask to dentist to trim cast and design surgical template
17. Make impression of trimmed cast using alginate impression material
18. Pour and trim duplicate cast
19. Adapt sheet of baseplate wax to tissue surface of cast
20. Flask surgical template
21. Eliminate wax from mold
22. Carve posterior palatal seal to prescribed width and depth
23. Apply separating medium to stone areas of mold
24. Mix acrylic resin IAW manufacturer’s instructions
25. Trial pack molds IAW manufacturer’s directions
26. Perform final closure of flasks with no packing sheets
27. Place flasks in flask carrier
28. Submerge carrier in curing unit and cure acrylic resin IAW manufacturer's instructions
29. Deflask and remount denture
30. Perform selective grinding procedures to return denture to previously established occlusal relationship
31. Remove denture and surgical template from cast
32. Place patient ID and finish and polish denture base and surgical template
33. Disinfect completed denture and surgical template
34. Store in a humid environment

MODULE 18. FABRICATING IMMEDIATE DENTURES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to fabricate immediate dentures and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING IMMEDIATE DENTURES

DID THE TRAINEE…?	YES	NO
1. Remove and replace the anterior teeth one at a time, preserving the proximal contacts and duplicating the original axial inclinations		
2. Remove the posterior teeth and arrange the denture teeth in the prescribed occlusal relationship		
3. Wax gingival margins and root eminences to simulate natural tissue contours without creating food traps		
4. Shape the labial and lingual flanges to allow for the natural drape of the lips, cheeks and tongue		
5. Smooth the wax and re-define the gingival trim, ensuring removal of all excess wax from the denture teeth		
6. Verify the occlusion		
7. Flask and boilout the denture mold, and make a duplicate cast to process the surgical template		
8. Process acrylic resin into the denture and surgical template molds following the manufacturer's directions for mixing, packing, and curing		
9. Deflask the denture without breakage, remount and re-establish the prescribed occlusal relationship		
10. Place patient ID, finish and polish the denture base and surgical template, to refine contours and produce a smooth, hygienic surface		
11. Clean and disinfect the completed denture and surgical template		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 19. FABRICATING RPD DENTURE BASES

STS TASK REFERENCE(S):

6f(1) Arrange artificial teeth for RPDs

6f(2) Wax-up RPD denture base areas

6f(3) Process RPD denture bases

6f(4) Finish and polish RPD denture bases

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Explain the purpose of raising the incisal guide pin 0.5 mm. Demonstrate how to fabricate RPD bases. Emphasize caution when separating flask halves to prevent breakage. Have the trainee fabricate RPD bases and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Acrylic Resin
Alcohol Torch
Articulator
Artificial Teeth
Baseplate Wax
Boil-Out Unit
Brush
Bunsen Burner
Burs
Curing Unit
Dental Handtools/Instruments
Dental Stone
Detergent
Disinfectant Solution
Flask
Flask Carrier
Flask Press
Metal Ladle
Mixing Bowl
Mixing Jar with Lid
Packing Sheets
Separating Medium
Vacuum Mixer
Gloves
Patient ID material
Pumice
Polishing Compound

STEPS IN TASK PERFORMANCE:

1. Review DD Form 2322 for specific instructions (shade, mold, and brand)
2. Articulate casts using proper settings
3. Stabilize free-end tissue stop to prevent vertical (downward) movement, if applicable
4. Raise incisal guide pin by 0.5 mm
5. Grind posterior teeth to fit framework using burs
6. Set posterior teeth to framework using baseplate wax
7. Return incisal guide pin to original setting
8. Reposition teeth to achieve tight centric and 1 mm horizontal overlap
9. Grind posterior teeth until incisal guide pin is in contact with incisal guide table
10. Wax RPD denture base
11. Boil-out and flask IAW module 13
12. Mix acrylic resin IAW manufacturer’s instructions
13. Split pack denture base areas
14. Trial pack using cellophane sheets
15. Perform final pack with no cellophane sheets
16. Ensure metal to metal contact between flask halves
17. Place flask in carrier
18. Place flask carrier in curing unit and cure resin IAW manufacturer's instructions
19. Remove flask from curing unit and bench cool to room temperature
20. Remove flask from flask carrier
21. Remove flask lid and place flask in flask ejector
22. Place deflasking chisels into flask ejector slots
23. Press or push downward on deflasking chisels to separate flask from stone mold
24. Invert flask ejector and repeat separation procedures
25. Remove mold and flask from flask ejector
26. Make cuts in heel and cuspid area to remove RPD and cast from mold
27. Ensure RPD is not damaged
28. Remove stone from palate or tongue area of RPD using air chisel
29. Clear remaining stone from cast using plaster knife
30. Remount and restore occlusion, as prescribed by dentist
31. Separate RPD from cast using air chisel or crown and bridge saw
32. Trim off excess stone and acrylic using bur and handpiece/bench lathe
33. Remove any sharp spots from tissue area
34. Place patient identification either in resin or scribed in framework
35. Remove scratches using polishing lathe with wet rag wheel and pumice
36. Polish RPD with polishing compound using rag wheel
37. Clean and disinfect RPD and store in a humid environment

MODULE 19. FABRICATING RPD DENTURE BASES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to fabricate RPD bases and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING RPD DENTURE BASES

DID THE TRAINEE…?	YES	NO
1. Raise the incisal guide pin 0.5 mm		
2. Set the denture teeth in the prescribed occlusal relationship		
3. (if applicable) Stabilize the tissue stop from occlusal (vertical forces)		
4. Return the incisal guide pin to its original position and grind the denture teeth into maximum intercuspation ensuring at least 1mm horizontal overlap with the pin in contact with the incisal guide table		
5. Wax the denture base areas to simulate natural tissue contours		
6. Flask the RPD without incorporating undercuts in the lower half flask and boilout the mold without breakage		
7. Mix, split pack and cure the acrylic resin following the manufacturer's directions		
8. Deflask the processed RPD without breakage, remount and correct the processing errors		
9. Remove the RPD from the cast, ensuring the framework is not distorted and the acrylic resin is not fractured		
10. Place patient ID and finish and polish the RPD to refine the contours and create a smooth, hygienic surface		
11. Clean and disinfect the finished RPD		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 20. RELINING REMOVABLE PROSTHESES

STS TASK REFERENCE(S):

6g Reline removable prostheses

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to properly reline a maxillary or mandibular removable prosthesis. Ensure that the trainee disinfects the prosthesis prior to working on it. Stress the need for taking care when boxing the prosthesis to prevent distorting the new impression material. When an RPD is being relined be careful not to bury delicate parts of the RPD in the stone. Stress that a clean surface needs to be achieved to ensure proper bonding of the new acrylic resin. Stress the importance of tightening the jig until metal-to-metal contact is achieved. Have the trainee perform reline procedures and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Acrylic Resin
Air or Electric Chisel
Boxing Wax
Bunsen Burner
Bur
Cast Trimmer
Cotton-Tipped Applicator
Preweighed Dental Stone
Polishing Compound
Pressure Pot
Pumice
Reline Jig
Separating Medium
Small Artist Brush
Sticky Wax
Tin-Foil Substitute
Vacuum Mixer
Vacuum Mixing Bowl
Vibrator
Gloves
Patient ID Material
Disinfectant
Finishing and Polishing Wheels

STEPS IN TASK PERFORMANCE:

1. Disinfect denture, or removable partial denture (RPD)
2. Bead, box and pour impression
3. Allow stone to set for one hour (final set)
4. Cut index notches on posterior and anterior areas of cast
5. Mix dental stone to thickened consistency and fabricate stone patty on lower member of jig
6. Invert denture into patty slightly indexing incisal edges and cusp tips
7. Allow stone patty to set
8. Mix dental stone and mount cast to upper member of jig
9. Tighten jig lock nuts to ensure metal to metal contact
10. Allow stone to set
11. Remove prosthesis from cast
12. Cut a posterior palatal seal in maxillary cast, if required
13. Apply separator substitute to cast
14. Remove reline material from denture base
15. Fabricate butt-joint on peripheral borders of denture
16. Roughen entire tissue surface of denture base and clean with monomer and cotton swabs
17. Place prosthesis into lower member index
18. Sticky-wax teeth onto stone index
19. Mix IAW manufacturer's instructions, ensuring no trapped air
20. Apply acrylic resin to denture base and cast, filling all voids
21. Reassemble reline jig
22. Alternately tighten lock nuts, ensuring metal to metal contact is achieved
23. Mold excess acrylic resin around denture borders using monomer soaked cotton-tipped applicator
24. Submerge cast (teeth down) in 115 °F water, seal and pressurize to 20 psi for 30 minutes.
25. Separate prosthesis from cast using air chisel
26. Trim excess acrylic resin to peripheral borders using bur
27. Insert patient ID
28. Pumice prosthesis using rag wheel or bur
29. Polish prosthesis with polishing compound using rag wheel
30. Disinfect prosthesis store in a humid environment

MODULE 20. RELINING REMOVABLE PROSTHESES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to accurately reline a removable prosthetic appliance and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

RELINING REMOVABLE PROSTHESES

DID THE TRAINEE...?	YES	NO
1. Disinfect the appliance prior to working on it		
2. Pour the impression, producing an accurate master cast		
3. Accurately mount the prosthesis in the reline jig, ensuring metal to metal contact between the jig halves		
4. Carefully remove the prosthesis from the cast and prepare the cast for packing procedures		
5. Remove all impression material from the prosthesis and create a butt joint at periphery		
6. Securely fasten the prosthesis to the lower member of the jig		
7. Apply separator to all acrylic resin contact areas		
8. Properly mix and apply the acrylic resin to the prepared denture base		
9. Correctly reassemble and tighten the jig		
10. Submerge the assembly in a pressure pot to cure the acrylic resin		
11. Carefully remove the prosthesis from the cast without breaking or warping acrylic resin		
12. Place patient ID and finish and polish the prosthesis		
13. Disinfect the prosthesis		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 21. REBASING COMPLETE DENTURES

STS TASK REFERENCE(S):

6h Rebase complete dentures

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to rebase complete dentures. Ensure the occlusal surfaces of the teeth are adequately indexed in stone to prevent tooth movement. Stress caution to prevent breakage of the cast during separation. Have the trainee rebase complete dentures and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Acrylic Resin
Baseplate Wax
Burs
Curing Unit
Disinfectant Solution
Flask Press
Mixing Bowl
Polishing Lathe
Ragwheels
Sticky Wax
Patient ID
Artificial Stone
Bunsen Burner
Cast Trimmer
Dental Handtools/Instruments
Flask
Identification (ID) Material
Polishing Compound
Polyvinyl Siloxane Impression Material
Separating Medium
Gloves
Pumice

STEPS IN TASK PERFORMANCE:

1. Disinfect denture,
2. Fabricate cast using denture as impression
3. Augment any deficient denture base contours with baseplate wax
4. Flask denture using polyvinyl siloxane material for upper half of flask
5. Separate flask halves and remove denture from cast
6. Remove denture base material from teeth
7. Replace denture teeth in upper half of flask and apply separator to exposed stone areas
8. Mix, pack, and cure acrylic resin IAW manufacturer's directions
9. Deflask denture and remove from cast
10. Grind denture base to remove sharp flash and refine denture contours
11. Place patient ID
12. Pumice and polish denture using ragwheels
13. Clean and disinfect complete denture and store in a humid environment

MODULE 21. REBASING COMPLETE DENTURES

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to rebase complete dentures and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

REBASING COMPLETE DENTURES

DID THE TRAINEE…?	YES	NO
1. Disinfect the denture and accurately pour the rebase cast		
2. Augment the denture base contours to produce a natural appearance and promote denture retention		
3. Flask the denture, ensuring facial/lingual flanges were coated with polyvinyl siloxane material and occlusal surfaces were indexed in stone		
4. Separate the flask halves without breakage and carefully remove the denture from the rebase cast		
5. Grind the denture base material from the teeth without altering the tooth contours		
6. Accurately reseat the denture teeth in the upper half of the flask and apply separator		
7. Mix, pack and cure the acrylic resin IAW manufacturer's directions		
8. Deflask the processed denture and remove from the cast without fracturing the denture		
9. Place patient ID and finish and polish the denture to refine the contours and provide a smooth hygienic surface		
10. Clean and disinfect the denture		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 22. PREPARING REINFORCED ACRYLIC PONTICS

STS TASK REFERENCE(S):

7d(9) Prepare Reinforced Acrylic Pontics

TRAINING REFERENCE(S):

AFP 162-6, Vol 2, *Dental Laboratory Technology*

Local Instructions

EVALUATION INSTRUCTIONS:

Demonstrate how to select the proper artificial tooth according to the provider's instructions and prepare reinforced acrylic pontics (RAP). Ensure the artificial tooth is positioned on the master cast to avoid all occlusal and lateral interferences. When constructing and removing the matrix from the cast, stress the importance of preserving adjacent teeth. Have the trainee prepare reinforced acrylic pontics and suggest ways to improve. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCE(S):

Artificial Teeth
Bunsen Burner
Dental Stone
Handpiece Or Lathe
Rubber Bowl
Sticky Wax
Baseplate Wax
Burs
Disinfectant Solution
Mixing Spatula
Separating Medium
Wax Pencil

STEPS IN TASK PERFORMANCE:

1. Refer to DD form 2322 for instructions (shade and mold)
2. Select artificial tooth for proper mold and shade
3. Mark ridge and proximal areas for selective grinding
4. Grind tooth for proper contour and wax into position
5. Apply separator to RAP area
6. Mix stone and apply to RAP area to fabricate matrix
7. Allow stone to set and remove matrix from cast
8. Trim matrix, using knife or lathe
9. Remove wax from stone cast
10. Verify proper fit
11. Disinfect and store in a humid environment

MODULE 22. PREPARING REINFORCED ACRYLIC PONTICS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to fabricate reinforced acrylic pontics for removable partial dentures and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

PREPARING REINFORCED ACRYLIC PONTICS

DID THE TRAINEE…?	YES	NO
1. Select proper shade and mold of tooth		
2. Mark the cast and grind tooth for proper contour and fit		
3. Wax tooth into position, apply separator to the cast and fabricate stone matrix		
4. Clean wax from the stone cast		
5. Verify accuracy of the fit between the RAP, stone matrix, and the cast		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 23. FABRICATING CANTILEVER LOOP SPACE MAINTAINERS

STS TASK REFERENCE(S):

8c Fabricate cantilever loop space maintainers

TRAINING REFERENCE(S):

AFP 162-6, Vol 3, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to fabricate cantilever loop space maintainers. Stress the importance of ensuring the band does not move during the cast fabrication procedure. Care should be taken not to overheat the solder. Have the trainee fabricate cantilever loop space maintainers and suggest ways to improve performance. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Dental Handtools/Instruments
Disinfectant Solution
Mixing Bowl
Orthodontic Wire
Rubber Points
Spatula
Stones
Dental Stone
Fluoride Flux
Orthodontic Soldering Torch
Polishing Compound
Silver Solder
Sticky Wax
Orthodontic wire-bending pliers

STEPS IN TASK PERFORMANCE:

1. Disinfect impression
2. Stabilize orthodontic band to alginate impression
3. Pour artificial stone into impression without disturbing band position
4. Separate cast from impression without disturbing band position
5. Adapt orthodontic wire to form cantilever loop
6. Sticky wax loop into position on cast and cover wire with stone, except in band/wire junction area
7. Remove sticky wax and ensure wire is in contact with band
8. Adjust orthodontic soldering torch to maximize reducing portion of flame
9. Place flux in solder area and solder loop to band using silver solder
10. Bulk finish soldered appliance on cast using stones and rubber points
11. Remove appliance from cast with care
12. Finish and polish appliance using stones and rubber points
13. Disinfect appliance and store in a humid environment

MODULE 23. FABRICATING CANTILEVER LOOP SPACE MAINTAINERS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to fabricate cantilever loop space maintainers and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING CANTILEVER LOOP SPACE MAINTAINERS

DID THE TRAINEE…?	YES	NO
1. Disinfect the impression and construct the cast without disturbing the band		
2. Adapt the orthodontic wire evenly across the facial and lingual surfaces of the band		
3. Adapt the stone matrix without covering the solder area or disturbing the wire		
4. Accurately solder the wire to the band without porosity		
5. Finish solder joints without compromising strength		
6. Smooth and polish the solder joints to a high luster		
7. Clean and disinfect the appliance		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

MODULE 24. FABRICATING HAWLEY RETAINERS

STS TASK REFERENCE(S):

8d Fabricate Hawley retainers

TRAINING REFERENCE(S):

AFP 162-6, Vol 3, *Dental Laboratory Technology*

EVALUATION INSTRUCTIONS:

Demonstrate how to fabricate Hawley retainers. Ensure the trainee applies separator to the cast before applying the acrylic resin. Have the trainee fabricate Hawley retainers and suggest ways to improve. Ensure the appliance is disinfected. After ensuring the trainee has received sufficient practice, evaluate his/her abilities using the performance checklist.

PERFORMANCE RESOURCES:

Baseplate Wax
Burs
Orthodontic Pliers
Orthodontic Wire
Pressure Pot
Rag Wheels
Spatula
Wax Pencil (Red & Blue)
Patient ID material
Bunsen Burner
Disinfectant Solution
Orthodontic Resin
Polishing Compound
Pumice
Separating Medium
Sticky Wax
Wire Cutters
Dental instruments

STEPS IN TASK PERFORMANCE:

1. Transfer design from DD Form 2322 to working cast surface
2. Block out undesirable undercuts with baseplate wax
3. Cut orthodontic wires to approximate required length
4. Bend orthodontic wires to design cast specifications
5. Secure orthodontic wires to cast with sticky-wax
6. Apply separating medium to cast
7. Sprinkle the acrylic resin to adequate thickness and coverage
8. Submerge cast (teeth down) in 115 °F water, seal and pressurize to 20 psi for 30 minutes.
9. Remove cast from pressure pot
10. Remove sticky wax
11. Place patient identification in appliance
12. Separate appliance from cast
13. Finish and polish appliance
14. Disinfect appliance and store in a humid environment

MODULE 24. FABRICATING HAWLEY RETAINERS

PERFORMANCE CHECKLIST

INSTRUCTIONS:

The trainee must be able to accurately fabricate a maxillary or mandibular Hawley retainer and satisfactorily perform all parts of the task without assistance. Ensure proper safety precautions are followed. Evaluate the trainee's performance using this checklist.

FABRICATING HAWLEY RETAINERS

DID THE TRAINEE…?	YES	NO
1. Properly block out the cast		
2. Adapt the proper size wire to the cast following the providers instructions		
3. Apply separator and sprinkle the acrylic resin to adequate thickness and coverage		
4. Completely cure the acrylic resin		
5. Separate the appliance without warping or breaking it		
6. Finish the appliance to a uniform thickness without damaging the wires		
7. Polish the appliance creating a smooth, hygienic surface		
8. Disinfect the appliance		

FEEDBACK:

Using this checklist as a source of information, discuss the trainee's performance indicating strengths and weaknesses, suggested improvements, etc. If the trainee performed all steps of the task satisfactorily, both the trainer and trainee should certify performance by appropriately documenting the OJT record.

Dental Laboratory Qualification Training Progress Record

Rank/Name _____

(Circle One)

Qualification Upgrade Training to: 5-Skill Level 7-Skill Level

Volume 3. Fabricating Removable and Orthodontic Appliances					
Core Task	***Module Number***	***Page Number***	***Module Title***	***Date Completed***	***Trainer's Initials***
	1.	1	Fabricating Athletic Mouthguards and Fluoride Carriers		
	2.	4	Fabricating Interim Removable Partial Dentures (RPD)		
⑤	3.	8	Fabricating Temporomandibular Joint Dysfunction (TMD) Appliances		
	4.	11	Fabricating Periodontal Stents		
	5.	14	Fabricating Surgical Splints		
	6.	17	Constructing Record Bases and Occlusal Rims		
⑤	7.	19	Arranging Denture Teeth for Bilateral Balanced Occlusion		
⑤	8.	22	Arranging Teeth for Monoplane Occlusion		
⑤	9.	25	Arranging Teeth for Crossbite Occlusion		
⑤	10.	28	Arranging Teeth for Opposing Natural Dentition		
⑤	11.	31	Arranging Teeth for Lingualized Occlusion		
⑤	12.	34	Waxing Complete Denture Bases		
⑤	13.	37	Processing Complete Denture Bases		
	14.	41	Applying Denture Base Stains		
⑤	15.	43	Restoring The Occlusion of Processed Complete and Removable Partial Dentures		
⑤	16.	46	Constructing Remounting Indices/index and Remount Casts		
⑤	17.	49	Finish and Polish Complete Dentures		
	18.	51	Fabricating Immediate Dentures		
⑤⑤	19.	55	Fabricating RPD Denture Bases		
⑤	20.	58	Relining Removable Prostheses		
	21.	61	Rebasing Complete Dentures		
⑤	22.	64	Preparing Reinforced Acrylic Pontics		
⑤	23.	66	Fabricating Cantilever Loop Space Maintainers		
⑤	24.	69	Fabricating Hawley Retainers		

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MEMORANDUM FOR 381 TRS (CDC Manager)
917 Missile Rd
Sheppard AFB TX 76311-2246

FROM:

SUBJECT: Qualification Training Package Improvement

1. Identify volume and module.

   Volume #_____

   Module # and title_____

2. Identify improvement/correction section(s)s)

_____ STS Task reference	_____ Performance Checklist
_____ Training Reference	_____ Feedback
_____ Evaluation Instructions	_____ Format
_____ Performance Resources	_____ Other
_____ Steps in Task Performance	

3. Recommended changes--use a continuation sheet if necessary.

_____
_____
_____
_____
_____
_____

4. Thank you for your time and interest.

YOUR NAME, RANK, USAF
Title/Position